

Nico D'Cotta

Platform Software Engineer

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EXPERIENCE

06/2020 – today
intern,
then part-time,
then full time,
then part-time

Platform engineer, at **Blockchain.com**

Large crypto finance house (including a wallet and an exchange) house with retail and institutional businesses.

Performing production incident response - with **PagerDuty**.

Shipping under time constraints on several large **JVM** codebases that power the cryptocurrency exchange and wallet.

Scaling up distributed systems with a microservices event-driven architecture.

Engineering tooling, like **Gradle** plugins, in order to facilitate development and allow for faster iterations.

06/2019 –
10/2019
intern

Software Engineer, at **Emit, Inc.**

Four-person startup with its own smartwatch aiming to provide time-analytics to institutional customers.

Worked on data analytics, developing a data processing pipeline and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**.

EDUCATION

2018 – 06/2022

MEng Computer Science – *currently First Class Honours*, at **Imperial College London**

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling.

Additional Business School modules include Finance & Financial Markets, Business Strategy, Project Management.

2015-2018

French Baccalaureate (S-SI) – *Highest Honours*, at **French Lycée of Madrid**

High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.

Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

see my full portfolio at nico.dcotta.eu

AWS (Lambda, DynamoDB, EC2),
Kotlin, VueJS, TS

DJStreamr, collaborative streaming service for DJs

🌐 djstreamr.com

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

Kotlin, JVM
bytecode, ARM11
assembly

WACC, multiplatform compiler

🔗 cottand/WACC

Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack-allocated primitives, and heap-allocated arrays and pairs.

C, x86 assembly

PintOS, UNIX-like OS

🌐 pintos-os.org

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

Unity, C#

ICHack'19 (*Hackathon*) – Best Mobile App Award

🔗 cottand/ICHack2019

AR-powered teaching app in that brings interactive 3D models to students' phones.

Elixir, Paxos

Multi-Paxos

🔗 cottand/multi-paxos

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper *Paxos Made Moderately Complex*.

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle

Experience with AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway), Nomad

Python, C, Haskell, Typescript, Elixir

gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

LANGUAGES

English - bilingual (C2 certification)

Spanish - native

French - bilingual

Portuguese - advanced level

HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!